

t39\_xxreal\_2 (TM-  
PQYGTrF7cFAHv6rfLh4BJmM5SsZPBXLqf)

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Let  $k1\_xxreal\_2 : \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k2\_xxreal\_0 : \iota$  be given. Let  $v1\_xxreal\_0 : \iota \Rightarrow o$  be given. Let  $r1\_xxreal\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_xxreal\_2 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_xxreal\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v2\_membered : \iota \Rightarrow o$  be given. Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow ((r1\_xxreal\_0 X0 k2\_xxreal\_0) \Rightarrow (X0 = k2\_xxreal\_0)) \quad (1)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow (m1\_xxreal\_2 X0 (k4\_xxreal\_1 X1 X0))) \quad (2)$$

Assume the following.

$$\forall X0.(v1\_xxreal\_0 X0) \Rightarrow (k4\_xxreal\_1 X0 k2\_xxreal\_0 = k1\_xboole\_0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_xxreal\_0 X0) \wedge (v1\_xxreal\_0 X1)) \Rightarrow (v2\_membered (k4\_xxreal\_1 X0 X1)) \quad (4)$$

Assume the following.

$$v1\_xxreal\_0 k2\_xxreal\_0 \quad (5)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (v1\_xxreal\_0 (k1\_xxreal\_2 X0)) \quad (6)$$

Assume the following.

$$\forall X0.(v2\_membered X0) \Rightarrow (\forall X1.(v1\_xxreal\_0 X1) \Rightarrow ((X1 = k1\_xxreal\_2 X0) \Leftrightarrow ((m1\_xxreal\_2 X1 X0) \wedge (\forall X2.(m1\_xxreal\_2 X2 X0) \Rightarrow (r1\_xxreal\_0 X1 X2)))))) \quad (7)$$

**Theorem 1**  $k1\_xxreal\_2 k1\_xboole\_0 = k2\_xxreal\_0$ .